

Serial No.: 10/732,937
Inventor(s): Bridges et al.

U.S. PTO Customer No. 25280
Case No.: 5505B

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REMARKS

The Pending Claims

Claim 37 has been amended to obviate the objection thereto without prejudice or disclaimer. Claims 29 and 33 were withdrawn. Thus, Claims 1, 6-28, 30-32, and 35-39 are currently pending in the application.

Summary of the Office Action

The Office Action dated November 2, 2006, included the following rejections and comments:

1. Claim 37 was objected to.
2. Claims 1-28, 30-32, and 34-38 were rejected over Hackler (WO 88/03969) in view of Biestline et al. (US 2003/0014823), Willis (5,116,243), and/or Robbins et al. (US 5,035,018).
3. Claim 39 was rejected over Hackler in view of Biestline et al., Willis and/or Robbins et al. as applied to claim 31 and further in view of Fisher et al. (5,571,444), Knowlton (6,225,403) and/or Magee et al. (2002/0012764).

Discussion of the Rejections

Claims 1-28, 30-32, and 34-38 were rejected as being unpatentable over Hackler (WO 88/03969) in view of Biestline et al. (US 2003/0014823), Willis (5,116,243), and/or Robbins et al. (US 5,035,018). Continued rejection of these claims based on the art of record is respectfully traversed in light of the earlier claim amendments.

In accordance with at least one aspect of the present invention as claimed in claim 1, the method comprises forming at least one higher melting thread having at least one higher melting point fiber constituent, wherein the higher melting point constituent is non-continuous, passing the higher melting thread through a doubling or winding process wherein a lower melting point thread is added, spinning or twisting the higher melting thread and the lower melting thread to form a combined thread, heating the combined thread above a temperature sufficient to melt the low melt thread, tufting the combined, fused thread in the carpet backing to form the tufted carpet, and printing an image on the tufted carpet with a jet dye machine. Applicants respectfully believe that the process of forming a high melt thread and then adding a lower melt thread to

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form a combined thread is different than the blended fiber thread of Hackler.

The Office Action states that Hackler does not explicitly teach forming a thread of a high melt fiber, passing the thread through a doubling or winding process wherein a low melt fiber or thread is added, and spinning to form a combined thread or yarn.

Applicants respectfully point out (and the Examiner does not contest) that blending as shown in Hackler is a different process than doubling, twisting, and spinning and results in different yarn constructions. Hackler states that,

"The binder fiber can be blended with the base staple fiber, and the resulting staple fiber blend can then be processed in known ways. It is important to insure a thorough blending to avoid potential clumps in the finished carpet." Page 4, lines 14-18.

The resultant fiber created by the Hackler blending process described above is a fiber with a mixture of high melt polymer staples and low melt polymer staples throughout the fiber.

In contrast, Applicants' have a lower melt thread added to an already formed higher melting thread through a doubling or winding process. These two threads are then spun or twisted together to form the combined thread. Having the low melt polymer thread twisted or "wrapped" around the high melt polymer thread produces a very different yarn and a different construction compared to a blend of high and low melt polymers in a yarn as taught by Hackler. Therefore, Applicants respectfully submit that Hackler teaches away from the present invention, teaches away from the proposed combination of references, and that the present invention is not obvious over Hackler in view of various art and known carpet formation practices.

Applicants respectfully submit that the recital of wool or such high percentages of wool fiber distinguishes over the art of record when the teachings of such art are considered in their entirety.

A number of claims (including claim 39) reciting a high melt fiber incorporating a blend of nylon and wool were rejected based on the teachings of Hackler in view of the fact that the use of wool or nylon wool blends in carpet yarn is known. The Office Action asserts that it would be an obvious design choice to substitute known fiber blends incorporating wool for the wholly synthetic base fibers of Hackler justifying the conclusion of obviousness on the basis that it would be within the general skill of a

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worker in the art to select wool or a nylon/wool blend on the basis of its suitability for the intended use.

Applicants respectfully submit that the Office Action has extended the ruling of *In re Leshin* to a situation not contemplated by that case. In *In re Leshin*, the question was whether or not it was obvious to select a known plastic material to be incorporated into a container (such as a lip stick dispenser) when it was already known that such containers could be made of plastic. It was held that merely selecting a known plastic for use in the container would be obvious.

In order to apply the holding of *In re Leshin* properly, it is respectfully believed that one must clearly define the intended use for the material being selected and then determine whether or not the selected material is in a grouping recognized as suitable for that use. Applicants intended use is a low melt fused carpet construction adapted for jet dyeing. While Applicants certainly acknowledge that wool has been used to make carpets for centuries, there is no indication in the art of any ability to blend wool with a low melting point constituent which is then heat activated. To the contrary, the primary reference to Hackler actually indicates that for this intended use the only recognized suitable materials are synthetic fibers (not natural fibers such as wool). In this regard, Hackler states that in the low melt fused carpet the base fiber is synthetic. See, page 1, line 4; page 2, line 38 – page 3, line 1; and page 3, lines 29-32 as well as the examples. Hackler teaches away from the use of wool, teaches away from the proposed combination, and does not disclose the claimed invention. When the intended use is properly defined as use in a low melt fused carpet construction adapted for jet dyeing— rather than a carpet in general, it is seen that wool is not recognized in the art as a suitable material. The present invention departs fundamentally from the teachings of Hackler by incorporating wool or a substantial percentage of wool in place of the pure synthetic base fibers advocated by that reference. Further, natural fibers such as wool are substantially different from synthetic fibers due to their natural hairiness and oiliness. That is, wool fibers are characterized by natural oils as well as by a tendency for surface elements to break away or sluff off. The jet dye printing of wool may also be substantially different from that of synthetic fibers. Thus, the selection of wool or a wool blend is not obvious under the narrow standards of *In re Leshin*.

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Aside from the fact that the standards of *In re Leshin* do not appear to be satisfied, in making a determination of obviousness the prior art must be considered in its entirety. In the present instance, the teachings of the primary reference, Hackler, indicate that only synthetic yarns were recognized as suitable for heat fused blending with low melt constituents in carpet. Certainly, the use of wool or other natural fibers in carpeting would have been known to Hackler, however, the teachings in the reference are nonetheless specifically limited to synthetic base fibers. The only explanation for this limited teaching in Hackler appears to be that the extension of the concepts in Hackler to natural fibers or blends was either never considered or was believed to be unworkable. Such lack of recognition by those of skill in the art is evidence of non-obviousness.

The substantial difference in character between wool and the synthetic fibers advocated by Hackler weighs against a conclusion that wool would be an obvious material of substitution. This is particularly true in view of the fact that Hackler focuses exclusively on synthetic materials without even mentioning the possibility of using a natural fiber.

The only rationale for a wool/low melt polymer thread where the low melt polymer is introduced during doubling, twisting, or spinning, where the heads after melting the low melt polymer are sized to accept multiple pixels of dye, and where the printing is by a jet dye machine in a pixelate fashion comes from the Applicant's own disclosure. Only by improper hindsight use of the present invention is this combination suggested. It is impermissible to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780, 1783-84 (Fed. Cir.1992). For these reasons, Applicants respectfully submit that the claimed invention is not obvious over Hackler in view of various art and known carpet formation practices.

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Conclusion

In view of the forgoing Amendments and Remarks, the Examiner is respectfully requested to withdraw the outstanding rejection and to pass the subject application to allowance. In the event that the Examiner believes that the claims would be allowable with minor changes, the Examiner is invited to telephone the undersigned to discuss an Examiner's Amendment.

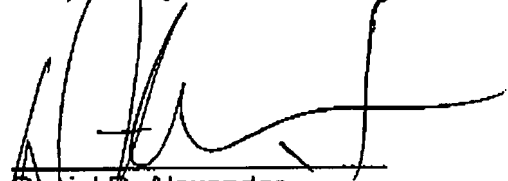
Fee Authorization: In the event that there are additional fees associated with the submission of these papers, Applicant hereby authorizes the Commissioner to withdraw those fees from our Deposit Account No. 04-0500.

Extension of Time: In the event that additional time is required to have the papers submitted herewith for the above referenced application to be considered timely, Applicant hereby petitions for any additional time required to make these papers timely and authorization is hereby granted to withdraw any additional fees necessary for this additional time from our Deposit Account No. 04-0500.

August 2, 2007

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